

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TADAHIRO MASAKI

Appeal No. 2002-0530
Application No. 09/175,407

HEARD: February 19, 2003

Before GROSS, LEVY, and SAADAT, Administrative Patent Judges.
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 4, 10, and 11. Claims 5 through 9 have been allowed by the examiner.

Appellant's invention relates to a light guide plate for use in a surface light source of a liquid crystal display and the method of making such a light guide plate. Specifically, the light guide plate is a molded product of an ionizing-radiation-curable resin and has a maximum thickness less than or equal to 1.0 mm. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A light guide plate for use in the surface light source equipment of a liquid crystal display or the like, wherein the

Appeal No. 2002-0530
Application No. 09/175,407

light guide plate is a molded product of an ionizing-radiation-curable resin, and its maximum thickness of the plate is 1.0 mm or less.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

| | | |
|----------------------------|-----------|-----------------------|
| Nishio et al. (Nishio) | 5,714,218 | Feb. 03, 1998 |
| Ishikawa et al. (Ishikawa) | 5,967,637 | Oct. 19, 1999 |
| | | (filed Aug. 29, 1995) |

Claims 1 through 4, 10, and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Nishio in view of Ishikawa.

Reference is made to the Examiner's Answer (Paper No. 19, mailed July 27, 2001) for the examiner's complete reasoning in support of the rejections, and to appellant's Brief (Paper No. 18, filed May 15, 2001) and Reply Brief (Paper No. 20, filed September 17, 2001) for appellant's arguments thereagainst.

OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellant and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 1 through 4, 10, and 11.

The examiner asserts (Answer, page 3) that Nishio discloses "an ionizing radiation curable resin composition for optical article, and surface source, . . . comprising a light guide plate

(51), by process of ionizing radiation curable resin composition (line 64-67, column 3)." We agree that Nishio discloses an optical article formed of an ionizing radiation-curable resin. Nishio also discloses a light guide plate (51) for use in a surface light source for a liquid crystal display. However, as pointed out by appellant (Brief, page 6, and Reply Brief, page 2), Nishio (column 5, line 64-column 6, line 9) defines "optical article" as:

a unidirectional or bidirectional array of fine unit lenses or prisms, such as a lenticular lens as hereinafter described. More specifically, the optical article includes light diffusing plates and light collecting plates for a back light of transmission LCD, electric decorative boards, advertizing displays, etc.; screens of projection TV sets; lenticular lenses, Fresnel lenses and retroreflection sheets for light collecting lenses; diffraction gratings; holograms; and recording media having modulated grooves or pits so as to record and reproduce information utilizing changes in reflectance or transmittance of light, such as compact discs and videodiscs. Many of these optical articles have on their surface a fine structure for efficiently reflecting, refracting or collecting light.

Nishio further reveals (column 19, lines 2-7) that the surface light source is composed of a light source **52** at the edge of a light conducting plate **51**, a light reflecting layer **53** on the back of the light conducting plate, and "optical article (lens array sheet) **9** of the present invention." Thus, contrary to the examiner's assertion, Nishio specifies a light guide plate as separate and different from the ionizing radiation-curable resin

Appeal No. 2002-0530
Application No. 09/175,407

optical article. In other words, Nishio fails to disclose a light guide plate of an ionizing radiation-curable resin.

In addition, the examiner admits (Answer, page 4) that Nishio lacks the claimed maximum thickness of 1 mm or less for the light guide plate. Therefore, the examiner turns to Ishikawa, stating (Answer, page 4) that Ishikawa's light guide plate "has a small thickness at a lower surface of about 1mm to 100mm (line 51-61, column 2)." Appellant does not dispute that Ishikawa's lower surface is as small as 1 mm. However, appellant argues (Brief, page 8) that the maximum thickness of Ishikawa's plate is greater than 1 mm, since a lower surface of about 1 to 2 mm means an upper surface (which is bigger than the lower surface) must be greater than 1 mm. Accordingly, appellant contends that Ishikawa fails to meet the thickness limitation of the claims.

The examiner (Answer, page 4) contends that "[n]owhere in claim 1 is it disclosed to [sic] which portion of the light guide plate possess [sic] the maximum thickness." Therefore, the examiner maintains that the 1 mm thickness of Ishikawa's lower portion meets the claim limitation. We find the examiner's position to be without merit. The claim recites "the maximum thickness of the plate is 1.0 mm or less." The only reasonable interpretation is that the maximum thickness across the entire

Appeal No. 2002-0530
Application No. 09/175,407

light guide is less than or equal to 1.0 mm. Thus, the examiner's assertions notwithstanding, Ishikawa fails to disclose a light guide plate with a maximum thickness less than or equal to 1 mm. As the examiner has not found the claimed light guide plate of an ionizing-radiation-curable resin nor the claimed thickness of the plate, he has failed to establish a *prima facie* case of obviousness. Consequently, we cannot sustain the obviousness rejection of the claims.

Appeal No. 2002-0530
Application No. 09/175,407

CONCLUSION

The decision of the examiner rejecting claims 1 through 4, 10, and 11 under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

REVERSED

| | | |
|-----------------------------|---|-----------------|
| ANITA PELLMAN GROSS |) | |
| Administrative Patent Judge |) | |
| |) | |
| |) | |
| |) | |
| |) | BOARD OF PATENT |
| STUART S. LEVY |) | APPEALS |
| Administrative Patent Judge |) | AND |
| |) | INTERFERENCES |
| |) | |
| |) | |
| |) | |
| MAHSHID D. SAADAT |) | |
| Administrative Patent Judge |) | |

AG/RWK

Appeal No. 2002-0530
Application No. 09/175,407

PARKHURST & WENDEL
1421 PRINCE STREET
SUITE 210
ALEXANDRIA, VA 22314-2805